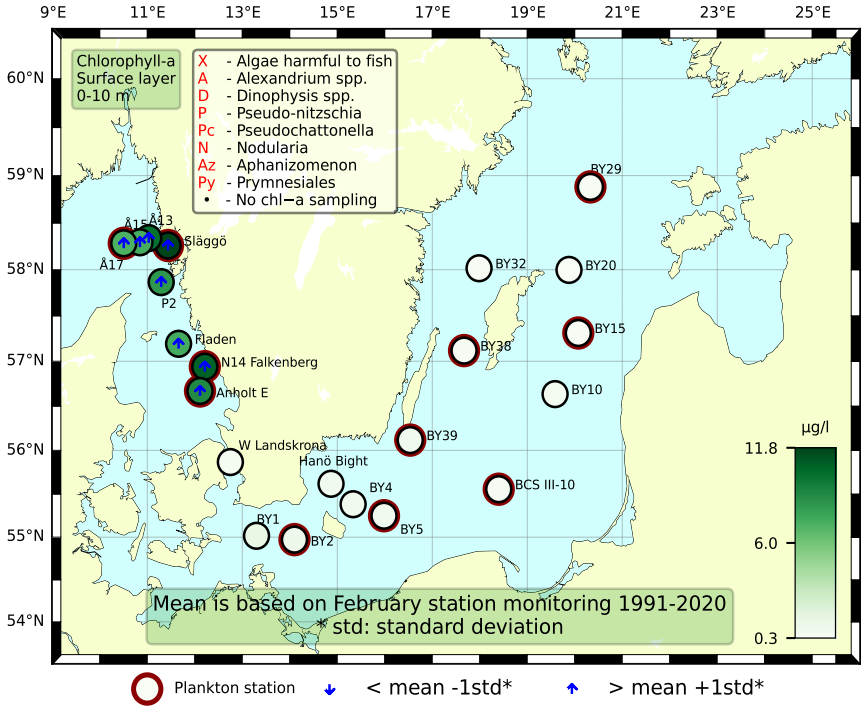
SMHI
Oceanographic Unit
No 2, February 2026

AlgAware
Dnr: 2026/18/3.1.3
ALGAL SITUATION IN
MARINE WATERS SURROUNDING SWEDEN

Sammanfattning

Vårblomning observerades vid alla stationer och kiselalgen *Skeletonema marinoi* dominerande vid samtliga, men i Skagerrak var dominansen mindre tydlig och flera andra kiselalgsarter återfanns i relativt höga tätheter. I Kattegatt var *S. marinoi* mer dominant. Överlag var artdiversiteten hög med många olika kiselalger. Dinoflagellater återfanns endast i låga tätheter. Bilder från IFCB (Imaging Flow CytoBot) ombord på R/V Svea visade att vårblomningssituationen var stadig till precis innan Öresund där antal celler minskade kraftigt. De integrerade klorofyllhalterna (0–10 m och 0–20 m) var över det normala för månaden vid samtliga stationer i Västerhavet fram till Öresund.

Diversiteten och cellantalen av växtplankton var generellt sett väldigt låga i Östersjön, men normala för årstiden. Generellt var det kiselalger av arten *S. marinoi*, mindre dinoflagellater, Cryptomonader och ciliaten *Mesodinium rubrum* som noterades i Östersjön. Detta stämmer överens med bilderna från IFCB:n, där även skillnaden i antal tagna bilder av planktonceller mellan Västerhavet och Östersjön syntes tydligt. De integrerade klorofyllhalterna var inom det normala för månaden vid alla stationer.



Abstract

The spring bloom was observed at all stations this month. The diatom *Skeletonema marinoi* dominated at all stations, but in Skagerrak other diatoms were also relatively common, whereas in Kattegat *S. marinoi* had a more prominent dominance. Dinoflagellates were overall few. Images from the IFCB (Imaging Flow CytoBot) onboard the R/V Svea showed that the spring bloom was ongoing until the entrance to the Sound where cell numbers decreased rapidly. Integrated chlorophyll concentrations (0–10 m and 0–20 m) were high and well above what is normal range for the month at all stations along the Swedish west coast all the way to the Sound.

Diversity and cell abundances of phytoplankton were generally very low, but normal for the season, in the Baltic Proper. In general, there were diatoms of the species *S. marinoi*, small dinoflagellates, Cryptomonads and the ciliate *Mesodinium rubrum* that were found in the Baltic Proper. This is in accordance with images from the IFCB, where also the difference in number of captured images between the west coast and Baltic was obvious. The integrated chlorophyll concentrations were within the normal range for this month at all stations.

Below follows a more detailed information on species composition and abundance. Species marked with * are potentially toxic or harmful.

The Skagerrak

Släggö (Skagerrak coast) 4th of February
Both species diversity and total cell numbers were high. A spring bloom situation was apparent with lots of diatoms. *Skeletonema marinoi* dominated, but *Thalassiosira nordenskioeldii, Chaetoceros danicus* and the genus *Pseudo-nitzschia** were numerous. Among the smaller cells different sorts of cryptomonadales were the most abundant taxa. The integrated chlorophyll concentrations from 0–10 m and 0–20 m were above the normal range for this month.

Å17 (Skagerrak coast) 4th of February
Both species diversity and total cell numbers were high. A spring bloom situation was apparent with lots of diatoms. *S. marinoi* dominated, but *T. nordenskioeldii,* the genus *Pseudo-nitzschia** and *Cerataulina pelagica*. The integrated chlorophyll concentrations from 0–10 and 0–20 m were above normal range for this month.

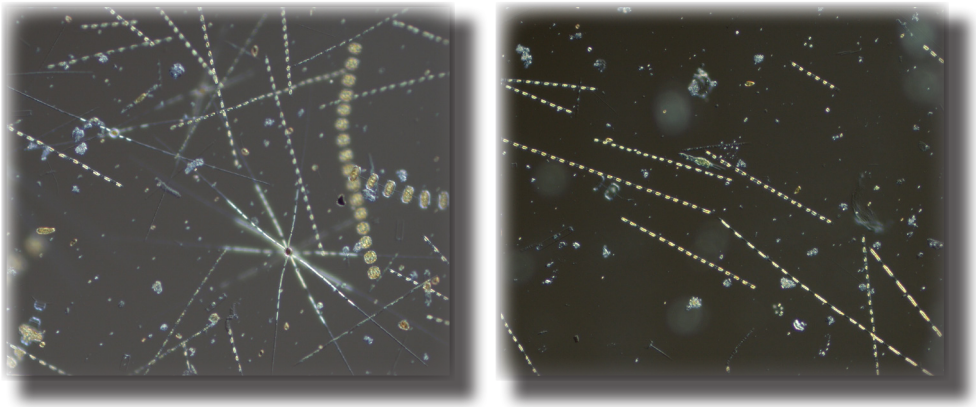


Fig 1. The spring bloom in the Skagerrak (left) was more diverse than in the Kattegat (right), where the diatom *Skeletonema marinoi* was more pronounced and dominating. Photo: M. Johansen.

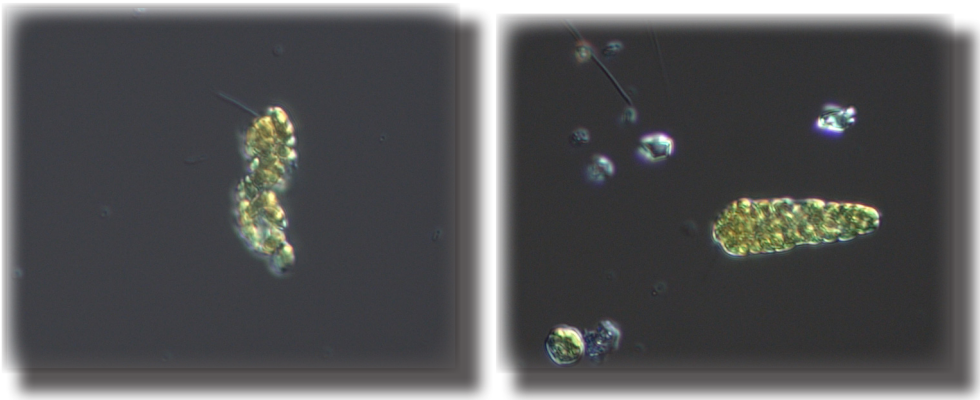


Fig 2. The flagellate *Pseudochattonella* was found in low amounts at all stations along the Swedish west coast; sometimes with a flagellum (left) and sometimes without (right). Photo: M. Johansen.

The Kattegat

Anholt E and N14 Falkenberg 5th of February
The total cell numbers were high and species diversity also quite high at both stations. A spring bloom situation was apparent with lots of diatoms and more clearly dominated by *S. marinoi* than in Skagerrak. Other diatoms, such as *C. danicus,* the genus *Pseudo-nitzschia** and *T. nordenskioeldii* were also present, but in substantially lower numbers. The integrated chlorophyll concentrations from 0–10 and 0–20 m were above the normal range for this month.

The Baltic

BY2 Arkona 6th of February

The phytoplankton diversity and abundances were low. Among the diatoms, a few cells of *S. marinoi* were present and very few of the potentially toxin producing genus *Pseudo-nitzschia**. Dinoflagellates were represented by small individuals of Gymnodiniales. Cryptomonadales and the ciliate *Mesodinium rubrum* were quite numerous. The integrated 0–10 and 0–20 m chlorophyll concentrations were within the normal range for this month.

BY5 Bornholm deep 6th of February

The phytoplankton diversity and abundances were low. Among the diatoms, a few cells of *S. marinoi*, *T. nordenskioeldii* and *Melosira arctica* were present. Dinoflagellates were represented by small individuals of Gymnodiniales and only a few of the colony forming *Peridiniella catenata*. Cryptomonadales and the ciliate *M. rubrum* were quite numerous. The integrated 0–10 and 0–20 m chlorophyll concentrations were within the normal range for this month.

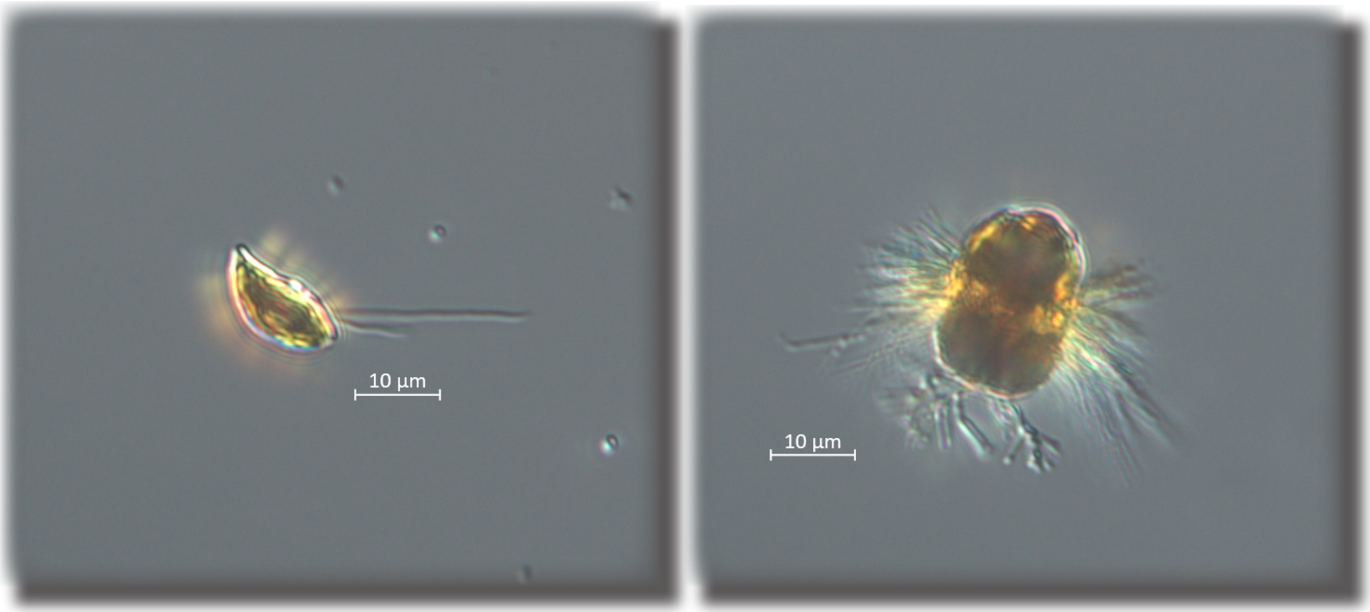


Fig 3. A Cryptomonad (left) and *Mesodinium rubrum* (right) at BY29. These taxa were present, and sometimes quite numerous, at stations in the Baltic Proper in February. Photo M. Karlberg.

BCSIII-10 7th of February

The phytoplankton diversity and abundances were low. Among the diatoms, a few cells of *S. marinoi* and *T. nordenskioldii* were present and very few of the potentially toxin producing genus *Pseudo-nitzschia**. Dinoflagellates were represented by small individuals of Gymnodiniales. Cryptomonadales and the ciliate *M. rubrum* were present. The integrated 0–10 and 0–20 m chlorophyll concentrations were within the normal range for this month.

BY15 Gotland deep 8th of February

The phytoplankton diversity and abundances were low. Among the diatoms, a few cells of *Actinocyclus octonarius* were present. Dinoflagellates were represented by some Gymnodiniales and Peridiniales and Cryptomonadales and the ciliate *M. rubrum* were present. The integrated 0–10 and 0–20 m chlorophyll concentrations were within the normal range for this month.

BY29/LL19 9th of February

The phytoplankton diversity and abundances were low. Among the diatoms, a few cells of *S. marinoi* were present. Dinoflagellates were represented by small individuals of Gymnodiniales and some cells of the colony forming *P. catenata*. Cryptomonadales and the ciliate *M. rubrum* were present, as well as various choanoflagellates. The integrated 0–10 m chlorophyll concentrations were within the normal range for this month.

BY31 Landsort deep 9th of February
The phytoplankton diversity and abundances were low. Among the diatoms, a few cells of *S. marinoi* were present. Dinoflagellates were represented by small individuals of Gymnodiniales and some cells of the colony forming *P. catenata*. The toxin producing *Dinophysis acuminata** was found. Cryptomonadales and the ciliate *M. rubrum* were present.

BY38 Karlsö deep 10th of February
The phytoplankton diversity and abundances were low. Among the diatoms, very few cells of *S. marinoi* were present. Dinoflagellates were represented by some Gymnodiniales and Peridiniales. Cryptomonadales and the ciliate *M. rubrum* were present. The integrated 0–10 and 0–20 m chlorophyll concentrations were within the normal range for this month.

BY39 Öland south 10th of February
The phytoplankton diversity and abundances were low. Among the diatoms, very few cells of *S. marinoi* were present. Dinoflagellates were represented by small individuals of Gymnodiniales and very few cells of the colony forming *P. catenata*. The filamentous cyanobacterium *Aphanizomenon flosaquae* was quite numerous. Cryptomonadales and the ciliate *M. rubrum* were present. The integrated 0–10 and 0–20 m chlorophyll concentrations were within the normal range for this month.

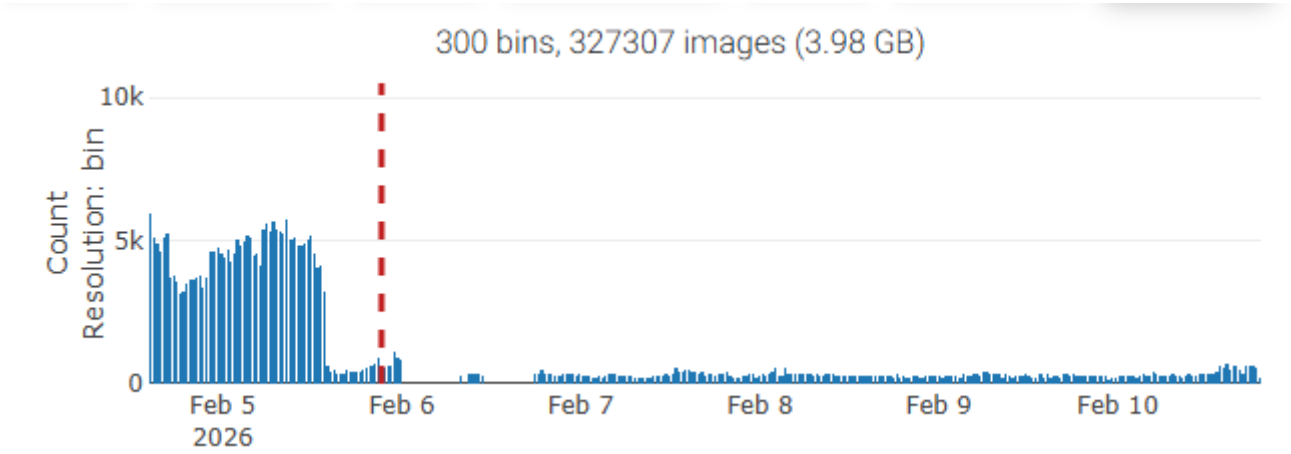
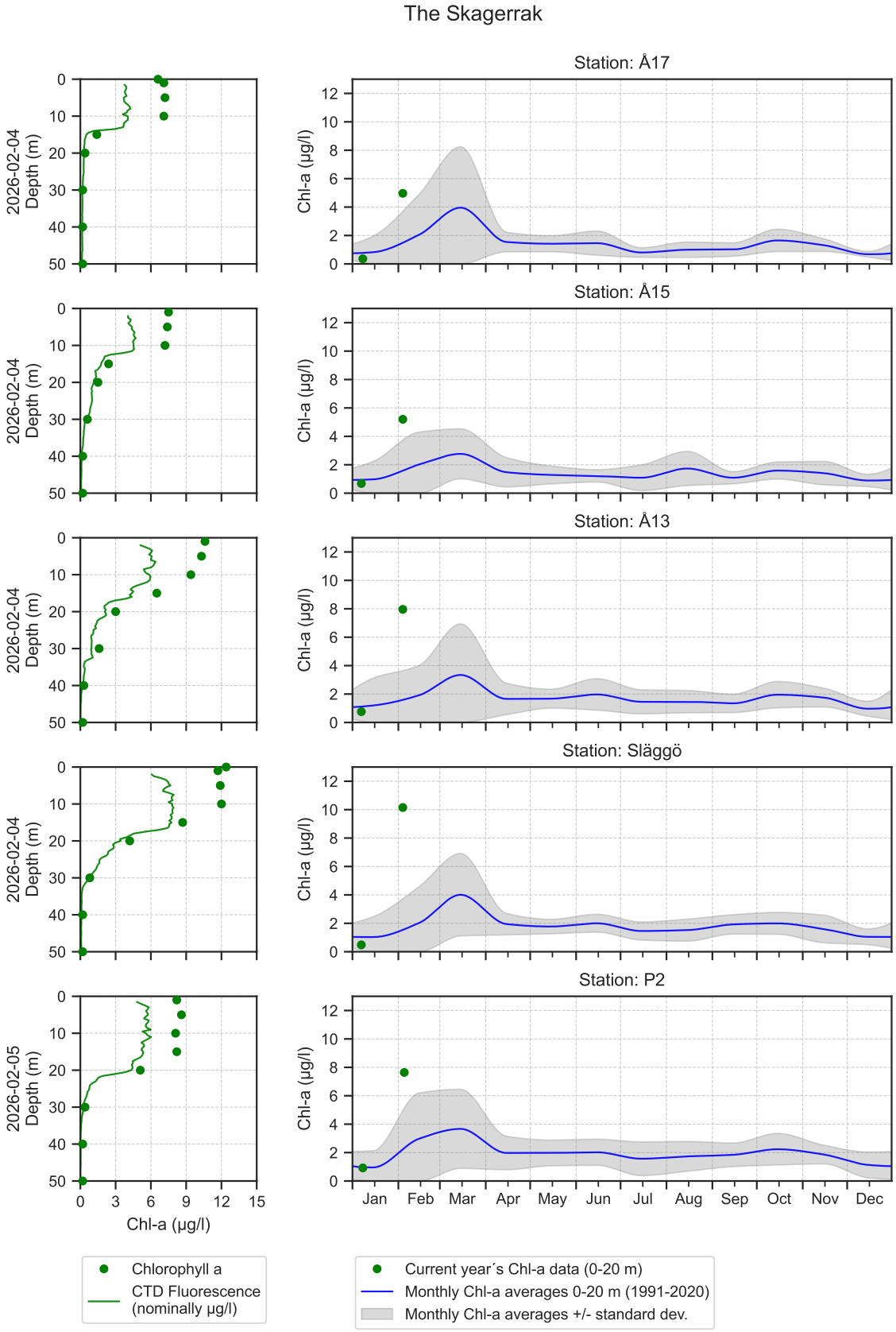


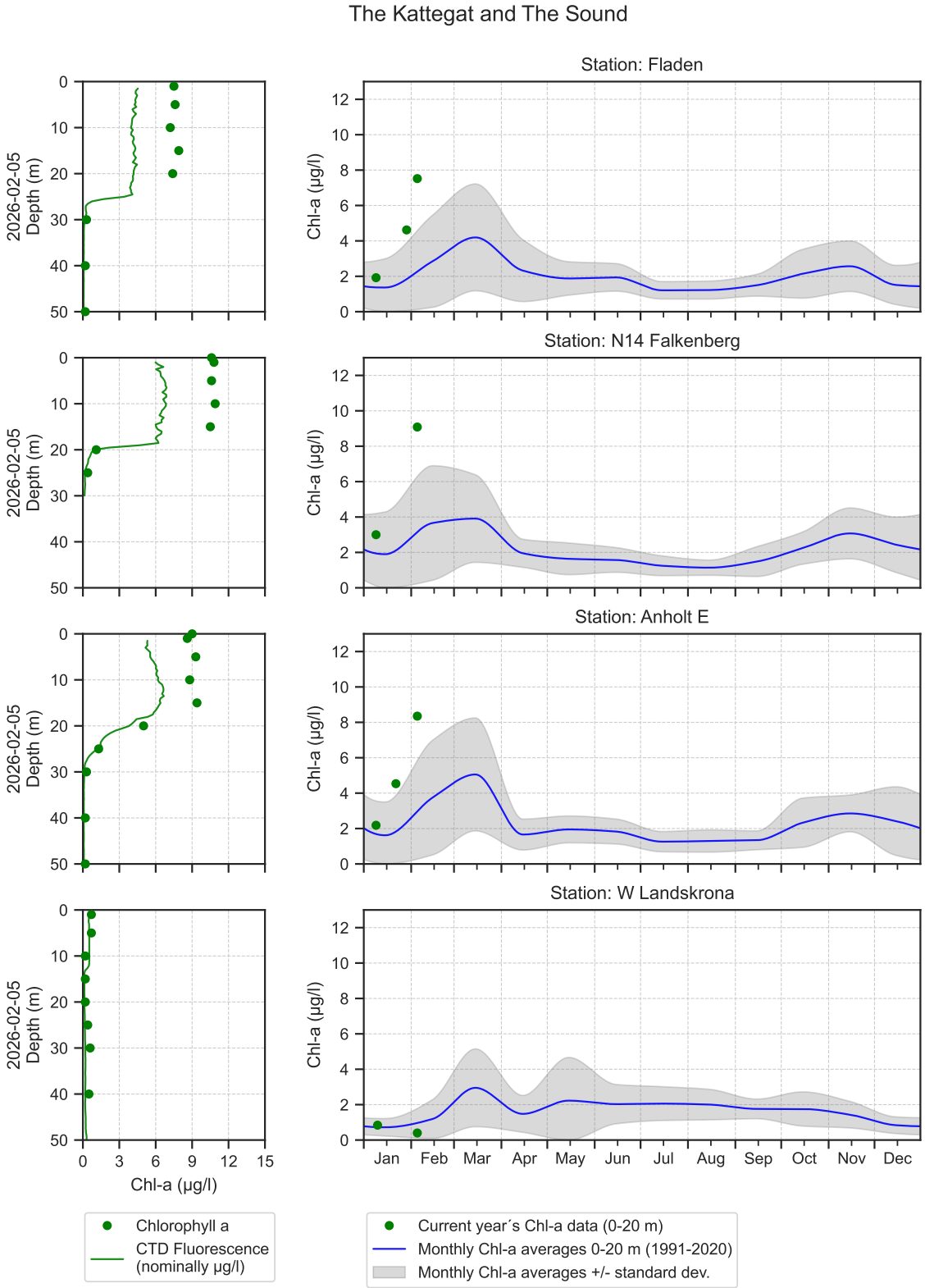
Fig 4. The number of images per hour captured by the IFCB shows the difference in abundance between the Kattegat and the Baltic Proper. In late evening February 5th (red line) R/V Svea passed the Öresund bridge.

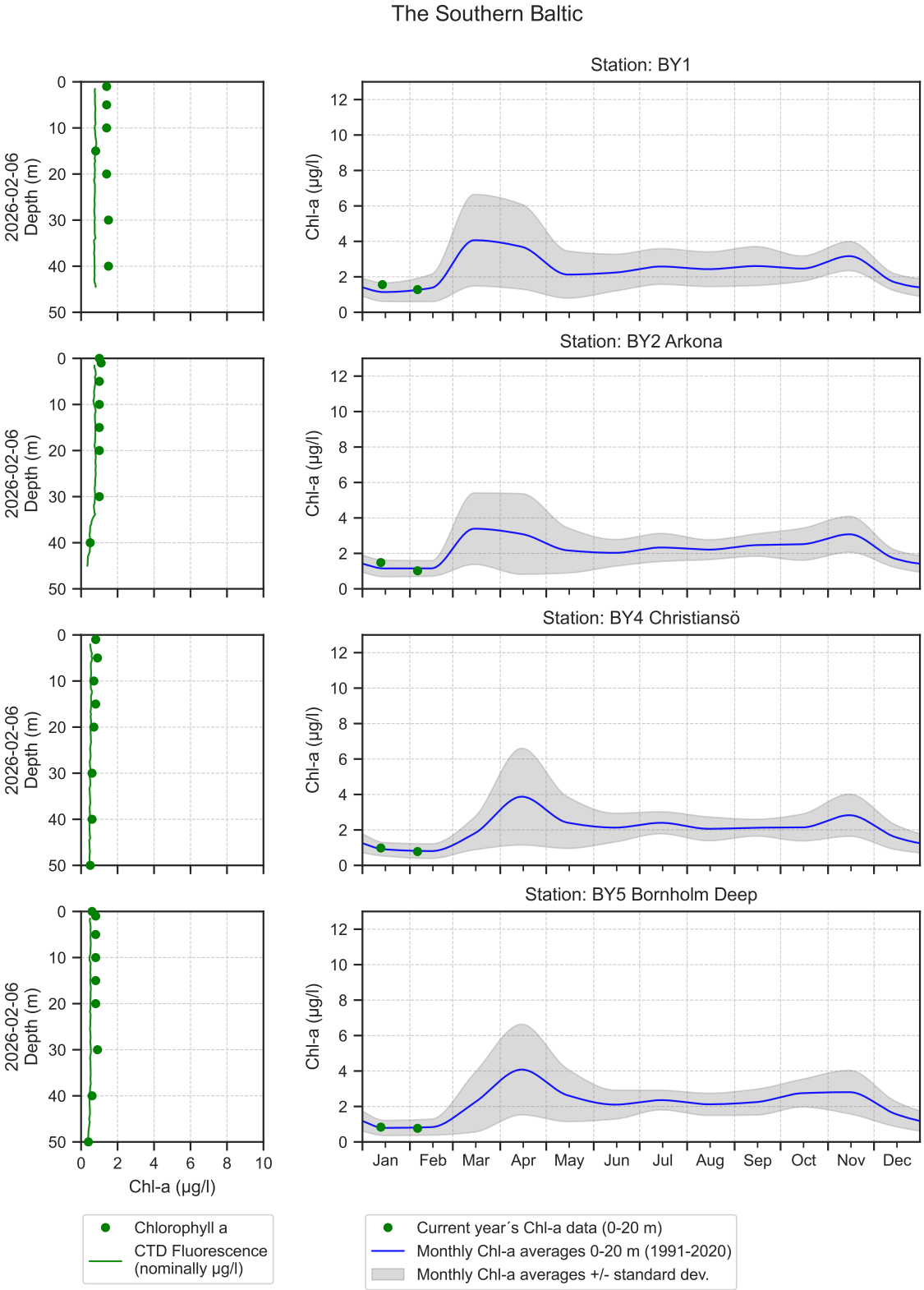
Phytoplankton analysis and text:
Marie Johansen and Maria Karlberg.

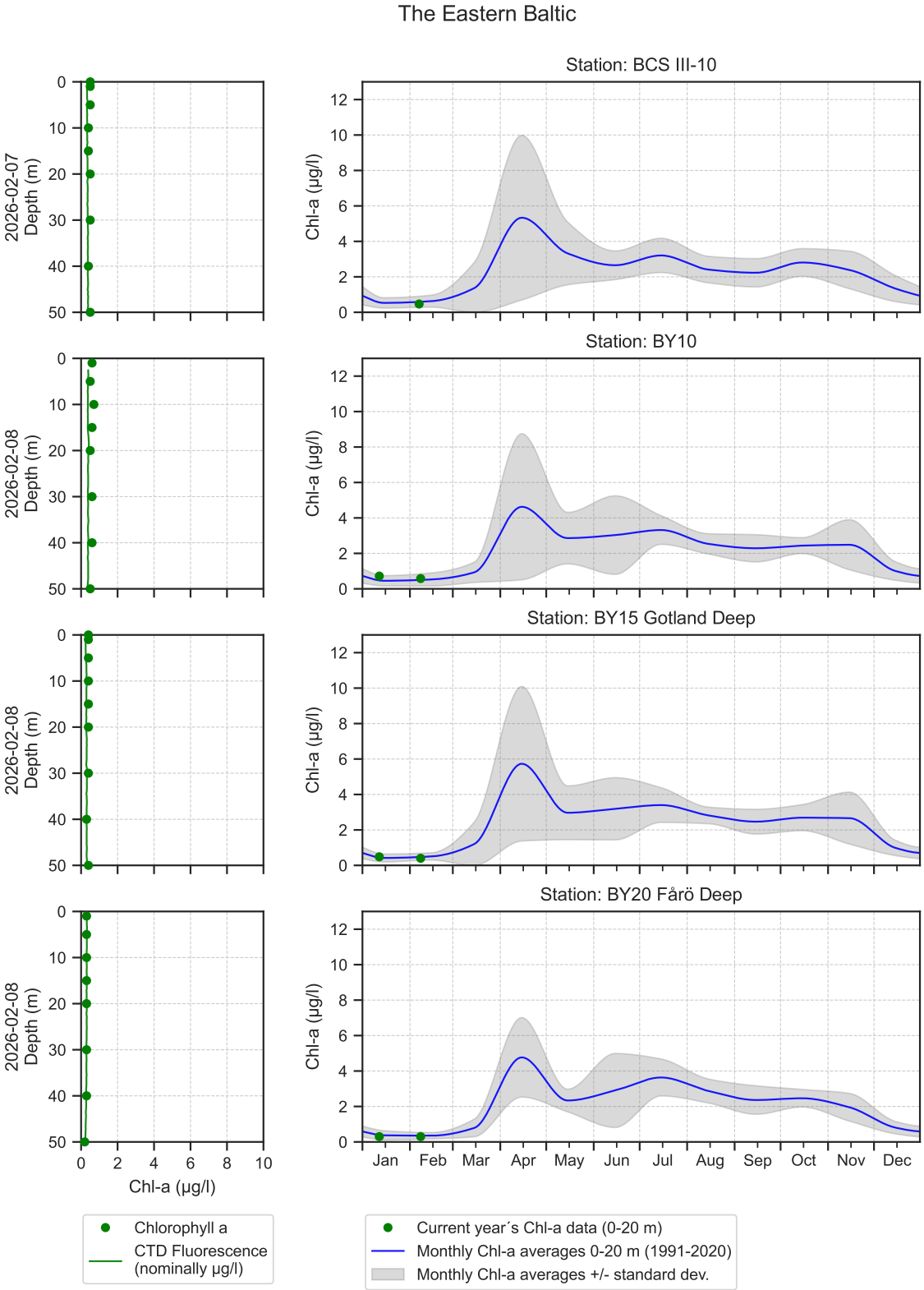
Selection of observed species	Anholt E	N14	Släggö	Å17
Red=potentially toxic species	5/2	5/2	4/2	4/2
Hose 0-10 m	presence	presence	presence	presence
Centrales	present		present	
Cerataulina pelagica	present	present	present	common
Chaetoceros cf. convolutus	present			
Chaetoceros curvisetus	present	present		present
Chaetoceros danicus	common	common	common	present
Chaetoceros similis		present		present
Chaetoceros subtilis			present	present
Coscinodiscus concinnus		present		
Coscinodiscus radiatus		present		present
Dactyliosolen fragilissimus				present
cf. Detonula pumila		present		
Ditylum brightwellii	present	present	present	present
Guinardia delicatula		present		present
Guinardia flaccida	present	present	present	present
Lennoxia faveolata	present		present	present
Leptocylindrus danicus	present			
Navicula		present	present	present
Nitzschia longissima			present	
Porosira glacialis			present	
Proboscia alata	present	present		
Pseudo-nitzschia	common	common	common	very common
Pseudosolenia calcar-avis	present	present	present	present
Rhizosolenia setigera	present			
Skeletonema marinoi	dominating	dominating	dominating	dominating
Thalassionema nitzschioides				present
Thalassiosira anguste-lineata		present	present	present
Thalassiosira gravida	present	present	present	
Thalassiosira nordenskioeldii	common	common	common	common
Amphidinium sphenoides		present		
Dinophysis norvegica		present		present
Gymnodiniales		present	present	present
Gyrodinium spirale	present	present	present	
Heterocapsa rotundata		present		
Katodinium glaucum	present		present	
Peridiniales	present			
Protoperidinium		present	present	
Protoperidinium depressum			present	
Protoperidinium pallidum		present	present	present
Protoperidinium pellucidum			present	present
Tripos fusus				present
Tripos muelleri	present	present	present	present
Prymnesiales			present	
Oocystis				present
Cryptomonadales	common	common	common	common
Katablepharis remigera	present			present
Telonema subtile			present	
Apedinella radians	present	present	present	
Dictyochales				present
Octactis speculum	present	present	present	present
Pseudochattonella	present	present	present	present
Pseudopedinella pyriformis		present		present
Pseudanabaena	present	present	present	
Choanoflagellatea	present	common	common	
Ciliophora	present	present	present	present
Cryothecomonas scybalophora			present	

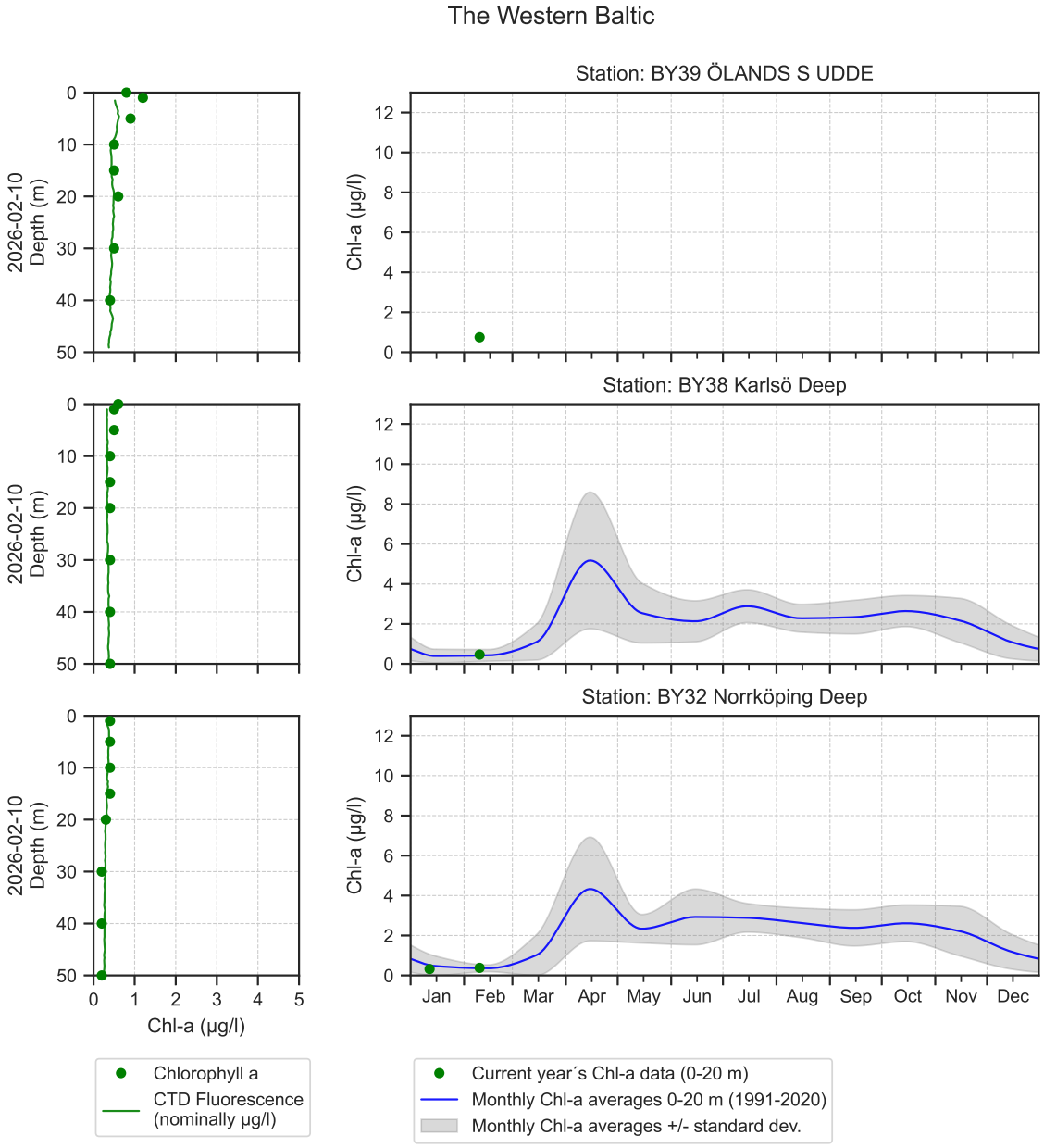
Selection of observed species	BY2	BY5	BCSIII-10	BY15	BY29/LL19	BY31	BY38	BY39
Red=potentially toxic species	6/2	6/2	7/2	8/2	9/2	9/2	10/2	10/2
Hose 0-10 m	presence	presence	presence	presence	presence	presence	presence	presence
Actinocyclus octonarius			present	present	present	present	present	
Centrales		present	present	present			present	present
Chaetoceros danicus			present					
Chaetoceros subtilis					present			
Diploneis	present							
Melosira arctica		present						present
Navicula GRP	present							
Nitzschia longissima						present		
Pseudo-nitzschia	present		present					
Skeletonema marinoi	present	present	present		present	present	present	present
Thalassiosira angulata		present						
Thalassiosira nordenskioeldii		present	present					
Dinophysis acuminata						present		
Diplopsalis CPX					present		present	
Gymnodiniales	present	present	present	present	present	present	present	present
Katodinium glaucum	present				present	present	present	
Peridiniales			present	present				
Peridiniella catenata		present		present	present	present	present	present
Protoperidinium brevipes				present				
Oocystis				present				
Binuclearia lauterbornii	present	present	present	present		present	present	present
Cryptomonadales	common	common	present	present	present	present	present	present
Eutreptiella	present		present					
Aphanizomenon				present				present
Aphanizomenon flosaquae								present
Aphanocapsa cf. holsatica			present					
Aphanothece paralleliformis			present					
Lemmermanniella				present		present		
Pseudanabaena	present	present	present	present	present	present	present	present
Snowella		present	present			present	present	present
Calliacantha natans					present	present		
Choanoflagellatea					present			
Mesodinium rubrum	present	common	present	present	present	present	present	present


The Skagerrak
Station: Å17
Station: Å15
Station: Å13
Station: Släggö
Station: P2
2026-02-04
2026-02-05
Depth (m)
Chl-a (µg/l)
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Chlorophyll a
CTD Fluorescence (nominally µg/l)
Current year´s Chl-a data (0-20 m)
Monthly Chl-a averages 0-20 m (1991-2020)
Monthly Chl-a averages +/- standard dev.


The Kattegat and The Sound
Station: Fladen
Station: N14 Falkenberg
Station: Anholt E
Station: W Landskrona
2026-02-05
Depth (m)
Chl-a (µg/l)
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Chlorophyll a
CTD Fluorescence (nominally µg/l)
Current year´s Chl-a data (0-20 m)
Monthly Chl-a averages 0-20 m (1991-2020)
Monthly Chl-a averages +/- standard dev.


The Southern Baltic
Station: BY1
Station: BY2 Arkona
Station: BY4 Christiansö
Station: BY5 Bornholm Deep
2026-02-06
Depth (m)
Chl-a (µg/l)
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Chlorophyll a
CTD Fluorescence (nominally µg/l)
Current year´s Chl-a data (0-20 m)
Monthly Chl-a averages 0-20 m (1991-2020)
Monthly Chl-a averages +/- standard dev.


The Eastern Baltic
Station: BCS III-10
Station: BY10
Station: BY15 Gotland Deep
Station: BY20 Fårö Deep
2026-02-07
2026-02-08
2026-02-08
2026-02-08
Depth (m)
Chl-a (µg/l)
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Chlorophyll a
CTD Fluorescence (nominally µg/l)
Current year´s Chl-a data (0-20 m)
Monthly Chl-a averages 0-20 m (1991-2020)
Monthly Chl-a averages +/- standard dev.



Om klorofylldiagrammen

Klorofyll *a* är ett mått på mängden växtplankton. Prover tas från ett antal djup. Data presenteras både från de fasta djupen och som medelvärden 0-20 m. Utöver resultaten från laboratorieanalyserna av vattenprover mäts klorofyll *a* som fluorescens från ett automatiskt instrument som sänks ned från fartyget. På så sätt kan djupt liggande, ibland tunna lager av växtplankton observeras.

About the chlorophyll graphs

Chlorophyll *a* is sampled from several depths. Data are presented both from the discrete depths and as an average 0-20 m. In addition to the laboratory analysis from the water samples chlorophyll fluorescence is measured in continuous depth profiles from the ship. This is a way to observe thin layers of phytoplankton occuring below the surface.

Om AlgAware

SMHI genomför månatliga expeditioner i Östersjön och Västerhavet. Resultat baserade på semikvantitativ mikroskopanalys av planktonprover samt klorofyllmätningar presenteras kortfattat i denna rapport. Information från SMHIs satellitövervakning av algblomningar finns under perioden juni-augusti på www.smhi.se. Resultat från provtagningarna kan hämtas från SMHI:s databas på sharkweb.smhi.se. Hydrografidata läggs ut varje månad, växtplanktondata läggs ut en gång per år.

About AlgAware

SMHI carries out monthly cruises in the Baltic and the Kattegat/Skagerrak. Results from semi quantitative microscopic analysis of phytoplankton samples as well as chlorophyll measurements are presented in brief in this report. Information from SMHIs satellite monitoring of algal blooms is found on www.smhi.se during the period June-August. Results from the expeditions are found in the SMHI database, sharkweb.smhi.se. Data are published monthly, phytoplankton data however, are published once a year.

Art / Species	Gift / Toxin	Eventuella symptom	Clinical symptoms
Alexandrium spp.	Paralytic shellfish poisoning (PSP)	**Milda symptom:** Inom 30 min.: Stickningar eller en känsla av bedövning runt läpparna, som sprids gradvis till ansiktet och nacken; stickningar i fingertoppar och tår; Huvudvärk; yrsel, illamående, kräkningar, diarré **Extrema symptom:** Muskelförlamning; andningssvårigheter; känsla av att kvävas; Man kan vara död inom 2-24 timmar efter att ha fått i sig giftet, på grund av att andningsmuskulaturen förlamas.	**Mild case:** Within 30 min: tingling sensation or numbness around lips, gradually spreading to face and neck; prickly sensation in fingertips and toes; headake, dizziness, nausea, vomiting, diarrhoea. **Extreme case** Muscular paralysis; pronounced respiratory difficulty; choking sensation; death trough respiratory paralysis may occur within 2-24 hours after ingestion.
Dinophysis spp.	Diarrehetic shellfish poisoning (DSP)	**Milda symptom:** Efter cirka 30 minuter till några timmar: yrsel, illamående, kräkningar, diarré, magont **Extrema symptom:** Upprepad exponering kan orsaka cancer	**Mild case:** Within 30 min-a few hours: dizziness, nausea, vomiting, diarrhoea, abdominal pain. **Extreme case:** Repeated exposure may cause cancer.
Pseudo- niztschia spp.	Amnesic shellfish poisoning (ASP)	**Milda symptom:** Efter 3-5 timmar: yrsel, illamående, kräkningar, diarré, magkramper **Extrema symptom:** Yrsel, hallucinationer, förvirring, förlust av korttidsminnet, kramper	**Mild case:** Within 3-5 hours: dizziness, nausea, vomiting, diarrhoea, abdominal cramps. **Extreme case:** dizziness, hallucinations, confusion, loss of memory, cramps.
Chaetoceros concavicornis/ C.convolutus	Mechanical damage through hooks on setae	**Låg celltäthet:** Ingen påverkan. **Hög celltäthet:** Fiskens gälar skadas, fisken dör.	**Low cell numbers:** No effect on fish. **High cell numbers:** Fish death due to gill damage.
Pseudochattonella spp.	Fish toxin	**Låg celltäthet:** Ingen påverkan. **Hög celltäthet:** Fiskens gälar skadas, fisken dör.	**Low cell numbers:** No effect on fish. **High cell numbers:** Fish death due to gill damage.

Översikt över några potentiellt skadliga alger och det aktuella giftets effekt. Overview of potentially harmful algae and effects of toxins. Manual on harmful marine microalgae (2003 - UNESCO Publishing).

Kartan på framsidan visar viktat medelvärde för klorofyll *a,* µg/l (0-10 m) vid de olika stationerna. Pil upp eller ned indikerar om resultatet är över eller under en standardavvikelse från medel. Medel är beräknat utifrån aktuell månad under perioden 2001-2015. Förekomst av skadliga alger vid stationer där arter analyseras markeras med symbol.

The map on the front page shows weighted mean of chlorophyll *a*, µg/l (0-10 m) at sampling stations. The arrow up or down indicate whether the result is above or below one standard deviation from mean. The mean value is calculated using results from the actual month during the period 2001-2015. Presence of harmful algae at stations where species analysis is performed is shown with a symbol.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